

to continue this interesting collection, had he lived. He has been honored by many Societies, including honorary fellowship of the Entomological Society of London in 1908.

He was a remarkable man of intense enthusiasm for the study of the Lepidoptera and an activity in the work of sixty years is not common. He was an ideal correspondent and always willing to go to any amount of trouble to supply information. He loved all aspects of the study and published some poems on insect life, the work of other authors, that he admired. Many of the papers published in the *Etudes* were by the pens of other persons, but the publisher was the magnet and the guiding star around which they revolved. He was most generous in giving credit to everyone, including the artists.

M. Oberthur was born at Rennes, France, on the 14th of September, 1845, being nearly 79 years old at the time of his decease.

"Priez Dieu Pour Lui."

HENRY SKINNER.

New Muscoid Diptera.

By H. J. REINHARD, Amherst, Ohio.

***Frontina ferruginea* new species.**

♂ Eyes bare. Front at vertex one-third width of head, wider before, cinereous pollinose on the sides, with numerous fine hairs outside of the frontals. Vitta reddish-brown, about one-third width of front, split posteriorly enclosing ocellar area. Ocellar bristles present, directed forward and outward. Frontals in two rows, the three uppermost bristles in each row strong and directed backward, the others weaker, directed inward and decussate to base of antennae, where rows diverge extending downward on sides of face to or slightly below level with arista. No orbital bristles. Posterior orbits, cheeks, facial depression and sides of face, silvery-white. Face receding, sides narrow, bare below lowest frontals. Facial depression large and rather deep, ridges ciliate upward almost to lowest frontals. Vibrissae strong, cruciate, inserted on level with oral margin. Cheeks hairy below, narrow, width about one-fourth the eye-height. Antennae almost as long as face, basal joints yellowish, very short, third joint blackish, elongate, front border practically straight. Arista brownish-black, bare, thickened to middle.

second joint twice as long as broad. Proboscis very short, fleshy, labella large, blackish. Palpi yellow, curved upward, somewhat thickened beyond basal third, bearing short black bristles with several longer hairs on lower surface.

Thorax gray pollinose, with four distinct black vittae, the outer pair interrupted at suture and reduced to triangular spots in front, inner pair narrower, entire, ceasing about midway between suture and base of scutellum. Four post-dorsocentral and four sternopleural bristles. Scutellum black, grayish pollinose, three pairs of marginal bristles, besides a shorter, cruciate, apical pair directed almost vertically.

Abdomen reddish-yellow, with a distinct median black vitta, hind margins of third and fourth segments sometimes blackish. Bases of last three segments white pollinose, elsewhere subshining. Bristles marginal only. Segments one and two, each, with a median pair; three, with a complete row; four, with a sub-marginal row.

Wings hyaline, without costal spine, veins yellow. Third vein with two or three short bristles at base, all others bare. Apical cell open, terminating far before tip of wing. Fourth vein arcuate beyond bend, without stump or wrinkle. Hind crossvein a little curved, slightly approximated to bend of fourth. Calypteres white.

Legs blackish, basal joints and base of femorae sometimes yellowish. Middle tibiae with one large bristle on front edge near middle, hind tibiae outwardly ciliate. Pulvilli and claws short.

Total length 5.5-6.5 mm.

♀. Differs by having two pairs of orbital bristles, second antennal joint longer, third joint shorter and yellowish. Bristles on facial ridges usually not extending as high, and less densely pilose on sides of front outside of frontals.

Type: Male, deposited in the United States National Museum, Washington, D. C. Described from six male and three female specimens, collected at College Station, July, September, 1920, July, 1923 (H. J. Reinhard).

In Coquillett's key this species runs to *rileyi* Will. (*irrequieta* Walk. of authors). It resembles that form rather closely in coloration, but may be readily distinguished by the smaller size, elongate third antennal joint, facial ridges less diverging below, a pair of median marginal bristles on first two abdominal segments, etc.

Oxynops robusta new species.

♀. Black, shining, faintly pruinose. Width of head at vibrissae much shorter than at base of antennae. Eyes large, apparently bare, but with sparse, short hairs. Front at vertex two-thirds the width of either eye, sides shining black above, whitish pollinose below. Vitta velvety, brownish-black, narrowing behind where it divides on each side of ocellar area. No ocellar bristles. Two proclinate and two reclinate fronto-orbital bristles, the latter pair situated in a straight line with the inner verticals, and about equidistant from each other. Outer verticals not developed. Uppermost frontals weak, stronger downward, decussate to base of antennae, and extending on sides of face to apex of second antennal joint. Face slightly wider than front, sides bare, silvery, almost linear below. Facial depression large and deep, whitish, ridges diverging, bristly almost to base of third antennal joint. Vibrissae decussate, inserted on level with oral margin and slightly above lower corner of eye. Antennae almost reaching oral margin, black, basal joints short, front side of third joint straight. Arista black, slender, slightly thickened near base, second joint hardly longer than broad. Cheeks very narrow. Proboscis black, short and fleshy. Palpi black, spatulate, almost reaching tip of proboscis.

Thorax thinly white pollinose, more pronounced anteriorly to suture and on pleurae. Four dorsal vittae apparent anteriorly, obsolete posteriorly to suture. Four post-dorsocentral and two sternopleural bristles. Scutellum black, shining, thickly covered above with short, black erect hairs, marginal bristles three pairs, in addition to a shorter sub-erect apical pair.

Abdomen short, shining black, clothed with recumbent bristly hairs, white pollinose on narrow bases of last three segments. Without discal bristles. Segments one and two, each, with a median pair; three, with a complete row; four, with only short bristly hairs.

Wings considerably longer than abdomen, hyaline, faintly tinged with yellow near base. Costal spine not well developed, all veins yellow, bare, except third which has one or two black bristles near base. Apical cell open, ending shortly before wing-tip. Bend of fourth vein broadly rounded, without stump or fold. Hind crossvein nearly straight, nearer to bend of fourth than to small crossvein. Calypteres distinctly tawny.

Legs black, without strong bristles. Middle tibiae with one bristle on front side beyond the middle, hind tibiae evenly ciliate. Pulvilli very short, claws somewhat longer.

Total length 6.5 mm.

Type: A unique female, collected at College Station, Texas, April 25, 1923 (H. J. Reinhard), deposited in the United States National Museum, Washington, D. C.

Aside from the great disparity in size this species agrees fairly well with the genotype, *nitens* Coq., with the following differences: abdomen pollinose on bases of last three segments, front proportionately wider, no ocellars, four dorsocentrals, etc. In relationship this genus is near *Hypostena* (of Coquillett) and is erected mainly on reproductive and early stage characters.

Pilatea albicincta new species.

♀. Black, densely grayish pollinose. Eyes rather small, bare. Front at vertex nearly the width of either eye, rather prominent before, sides cinereous, practically destitute of weak hairs. Vitta black, occupying one-third width of front, slightly narrower behind, cleft in front of ocelli and extending linearly on either side. Ocellar bristles strong, directed forward and outward. Inner and outer verticals developed, directed backward, the latter about one-half as long as inner pair. Frontal rows diverging at base of antennae, extending downward on sides of face to apex of second antennal joint, upper two bristles in each row before verticals directed backward, others directed inward and decussate to base of antennae. Two pairs of proclinate orbitals present. Face, facial depression, cheeks, and posterior orbits cinereous pollinose. The latter broad below, almost linear at vertex, bordered behind by a fringe of alternating long and short black hairs. Face broader than front, sides moderately wide, bare beneath lowest frontals. Facial ridges diverging, not prominent, with only four or five bristles at the base. Vibrissae strong, cruciate, inserted a little above the front border of oral margin. Cheeks sparsely hairy, width nearly one-half the eye-height. Antennae distinctly shorter than face, basal joints short, yellowish, third joint nearly three times length of second, black, covered with grayish pubescence. Arista brownish-black, practically bare, slender, slightly thickened near base, penultimate joint hardly longer than broad. Proboscis short, labella large and fleshy, yellowish. Palpi yellow, slender, bearing numerous short black bristles and a number of long fine hairs near the middle on the under side.

Thorax gray pollinose, mesonotum faintly brassy, with four distinct vittae. Post-dorsocentral bristles four, sternopleural bristles three, the lowest of which may be hairlike. Scutellum black, densely pollinose except near base, with three pairs of

marginal bristles, the posterior pair divergent, reaching to base of second abdominal segment.

Abdomen somewhat conical, black, first segment faintly pollinose, last three segments with broad whitish cross-bands, narrow hind borders of the intermediate segments sub-shining. First segment with a lateral marginal bristle, and a median marginal pair; second, with a median marginal and discal pair and a lateral marginal one; third, with a discal pair and a row of marginals; fourth with a row of marginals and discals. Median discals erect and asymmetrically placed.

Wings grayish hyaline, veins yellowish, costal spine small. Third vein with three short bristles near base, all others bare. Apical cell narrowly open, ending shortly before wing-tip. Angle at bend of fourth vein broadly obtuse, without fold or wrinkle, vein beyond bend almost straight in approaching the third, curving outward near the tip. Hind crossvein strongly bent inward near the base, distinctly approximated to bend of fourth vein. Calypteres white.

Legs black, basal joints densely pollinose. Middle tibiae with one strong bristle at middle on front side, hind tibiae not ciliate. Claws and pulvilli short.

Total length 7 mm.

Type: A single female, collected at College Station, Texas, April 8, 1921 (H. J. Reinhard), deposited in the United States National Museum, Washington, D. C.

This species differs from *celer* Coq., in having wider cheeks, front more prominent before, parafrontals cinereous. From *unicolor* Tns., it may be distinguished by the wider cheeks, hyaline wings, etc.

***Sturmia chrysoprocta* new species.**

♂. Front prominent, at vertex almost as wide as either eye, sides silvery, clothed with fine black hairs outside of frontal rows. Vitta reddish-brown, distinct, enclosing ocellar area, before ocelli about equal to width of parafrontal. Eyes bare. Ocellar bristles present, proclinate. Outer vertical bristles weakly developed, inner pair and the uppermost frontal in each row strong, directed backward, other frontal bristles directed inward, decussate to base of antennae, where rows diverge extending downward on sides of face to level with arista. No orbitals present. Posterior orbits, cheeks, facial depression and sides of face, silvery on a yellow ground color. Face much wider than front, sides bare, about one-third the width of facial

depression. The latter rather flat, triangular in outline, ridges flattened near base, bearing several irregular rows of short bristles which extend upward to or slightly beyond apex of last antennal joint. Vibrissal angles somewhat approximated (vibrissae broken off near base, the remaining stumps indicate them strong and decussate as usual), inserted slightly above oral margin. Cheeks hairy, width about one-third the eye-height. Antennae two-thirds as long as face, entirely yellow, third joint one and one-half times as long as second. Arista yellowish, bare, short and thickened almost to tip, penultimate joint not longer than thick. Proboscis short, yellowish. Palpi yellow, slender, not thickened beyond base, bearing black bristles.

Thorax black, gray pollinose; with four dorsal vittae. Post-dorsocentral bristles four, sternopleurals four, surrounded by numerous long pilose hairs. Scutellum grayish pollinose, yellow on the apical half, with three pairs of marginal bristles, besides a shorter, sub-erect, cruciate, apical pair.

Abdomen conical, densely clothed with recumbent hairs, faintly pollinose, sub-shining. Last segment yellow, others blackish, venter rufous. Bristles marginal only. Second segment with a lateral pair and median pair; third, with a complete marginal row; fourth, with a sub-marginal row.

Wings normal, without costal spine, grayish hyaline, veins yellow. Apical cell open, ending far before wing-tip. Third vein with three bristles near the base, others bare. Bend of fourth vein rounded, without stump or fold, straight from bend to wing-tip. Hind crossvein slightly bent inward at the middle, much nearer bend of fourth than to small crossvein. Calypteres white.

Legs yellowish, bristly, middle tibiae with two or more bristles on front side near the middle, hind tibiae evenly ciliate. Front pulvilli nearly as long as last tarsal joint. Claws elongate, yellow, tips black.

Total length 9 mm.

Type: A unique male specimen, from Riley County, Kansas (Popenoe), deposited in the United States National Museum, Washington, D. C.

This species is congeneric in the strict sense, with *vanessae* Desv., the genotype. The short wholly yellow antennae will serve to separate it from most of our species in this genus.